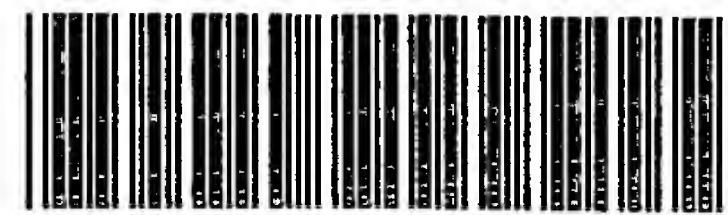


RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: 10/579,879A
Source: JFLW0
Date Processed by STIC: 3/6/07

ENTERED



IFWO

RAW SEQUENCE LISTING DATE: 03/06/2007
PATENT APPLICATION: US/10/579,879A **TIME:** 11:32:00

Input Set : N:\efs\03_06_07
cement_Sequence_Listing.txt
Output Set: N:\CRF4\03062007\J579879A.raw

3 <110> APPLICANT: The Government of the United States of America, as
4 represented by the Secretary of the Department of Health and
5 Human Services
6 Flomerfelt, Francis
7 Gress, Ronald
9 <120> TITLE OF INVENTION: SPATIAL FOR ALTERING CELL PROLIFERATION
11 <130> FILE REFERENCE: 4239-64851-02
C--> 13 <140> CURRENT APPLICATION NUMBER: US/10/579,879A
14 <141> CURRENT FILING DATE: 2006-05-17
16 <150> PRIOR APPLICATION NUMBER: PCT/US2003/036874
17 <151> PRIOR FILING DATE: 2003-11-18
19 <160> NUMBER OF SEQ ID NOS: 7
21 <170> SOFTWARE: PatentIn version 3.3
23 <210> SEQ ID NO: 1
24 <211> LENGTH: 933
25 <212> TYPE: DNA
26 <213> ORGANISM: Mus musculus
29 <220> FEATURE:
30 <221> NAME/KEY: CDS
31 <222> LOCATION: (84)..(677)
32 <223> OTHER INFORMATION: Coding sequence
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37 gaaaacttgtt ttggaaaccag ccc ctg ttt ctg ggg aat gta tat aag ggg agt
38 Leu Phe Leu Gly Asn Val Tyr Lys Gly Ser
39 1 5 10
41 tta gca cct cgt agg gat gag gtg act agt cca aag gca gag ccc cag
42 Leu Ala Pro Arg Arg Asp Glu Val Thr Ser Pro Lys Ala Glu Pro Gln
43 15 20 25
45 cca gag acg aag ccg gag aac ctt cca agg agc cac ggg gat gtt ggg
46 Pro Glu Thr Lys Pro Glu Asn Leu Pro Arg Ser His Gly Asp Val Gly
47 30 35 40
49 ctc cag aaa gag act gtg gtc cca ggc att gtg gat ttc gag ctg atc
50 Leu Gln Lys Glu Thr Val Val Pro Gly Ile Val Asp Phe Glu Leu Ile
51 45 50 55
53 cat gag gag ctg aag acc aca aag ccc caa aca tca caa cca aca ccc
54 His Glu Glu Leu Lys Thr Thr Lys Pro Gln Thr Ser Gln Pro Thr Pro
55 60 65 70
57 agt gcc tac cgc ttt gga cgc cta agc cac cat tcc ttc ttc tcg agg
58 Ser Ala Tyr Arg Phe Gly Arg Leu Ser His His Ser Phe Phe Ser Arg
59 75 80 85 90
61 cac cac ccc caa cca cag cga gtg act cat atc caa gat atc gct ggg
62 His His Pro Gln Pro Gln Arg Val Thr His Ile Gln Asp Ile Ala Gly

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Input Set : N:\efs\03_06_07

\10579879A_efs\Replacement_Sequence_Listing.txt

Output Set: N:\CRF4\03062007\J579879A.raw

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65 aag cct gtc tgc gtg gtc agg gac gag ttc tct ctg tcg gcc ttg act				449
66 Lys Pro Val Cys Val Val Arg Asp Glu Phe Ser Leu Ser Ala Leu Thr				
67 110	115	120		
69 cag ccc aca ttc tta tcc cgc tgt ctg atg ggg atg ccc acc atc tct				497
70 Gln Pro Thr Phe Leu Ser Arg Cys Leu Met Gly Met Pro Thr Ile Ser				
71 125	130	135		
73 gtc ccc att ggg gat cca cag tcc aat cgg aac ccc cag ctt tct act				545
74 Val Pro Ile Gly Asp Pro Gln Ser Asn Arg Asn Pro Gln Leu Ser Thr				
75 140	145	150		
77 tct gac acc tgg agg aag aaa ctg aag gac ctg gct tcc cga gtg act				593
78 Ser Asp Thr Trp Arg Lys Lys Leu Lys Asp Leu Ala Ser Arg Val Thr				
79 155	160	165	170	
81 gtc ttc act aag gaa atc cag cca aag ccc gat gag gtt ggt gtt gca				641
82 Val Phe Thr Lys Glu Ile Gln Pro Lys Pro Asp Glu Val Gly Val Ala				
83 175	180	185		
85 caa aga atg gag cct aga aaa aaa agg cct tct taa gtctccccaa				687
86 Gln Arg Met Glu Pro Arg Lys Lys Arg Pro Ser				
87 190	195			
89 tgctcagctg ctggcacggg agggaaagga ccctcataaac ctcgaaggtg acagcgaaaa				747
91 tcaaagaaac acaaaaatcac accttagcaga gaaatccaag aagggttccc agaaacacccc				807
93 tctaaagcaa ctgttcccaa cctgtctaatt gccttgaccc ttgaatacag tttctcacac				867
95 tgcagtaacc cctgcccccg aaataaaaatt atttcatta ctacttcaaa aaaaaaaaaaa				927
97 aaaaaaa				933
100 <210> SEQ ID NO: 2				
101 <211> LENGTH: 197				
102 <212> TYPE: PRT				
103 <213> ORGANISM: Mus musculus				
105 <400> SEQUENCE: 2				
107 Leu Phe Leu Gly Asn Val Tyr Lys Gly Ser Leu Ala Pro Arg Arg Asp				
108 1 5 10 15				
111 Glu Val Thr Ser Pro Lys Ala Glu Pro Gln Pro Glu Thr Lys Pro Glu				
112 20 25 30				
115 Asn Leu Pro Arg Ser His Gly Asp Val Gly Leu Gln Lys Glu Thr Val				
116 35 40 45				
119 Val Pro Gly Ile Val Asp Phe Glu Leu Ile His Glu Glu Leu Lys Thr				
120 50 55 60				
123 Thr Lys Pro Gln Thr Ser Gln Pro Thr Pro Ser Ala Tyr Arg Phe Gly				
124 65 70 75 80				
127 Arg Leu Ser His His Ser Phe Phe Ser Arg His His Pro Gln Pro Gln				
128 85 90 95				
131 Arg Val Thr His Ile Gln Asp Ile Ala Gly Lys Pro Val Cys Val Val				
132 100 105 110				
135 Arg Asp Glu Phe Ser Leu Ser Ala Leu Thr Gln Pro Thr Phe Leu Ser				
136 115 120 125				
139 Arg Cys Leu Met Gly Met Pro Thr Ile Ser Val Pro Ile Gly Asp Pro				
140 130 135 140				
143 Gln Ser Asn Arg Asn Pro Gln Leu Ser Thr Ser Asp Thr Trp Arg Lys				
144 145 150 155 160				

RAW SEQUENCE LISTING
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DATE: 03/06/2007
TIME: 11:32:00

Input Set : N:\efs\03_06_07

\10579879A_efs\Replacement_Sequence_Listing.txt

Output Set: N:\CRF4\03062007\J579879A.raw

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147 Lys Leu Lys Asp Leu Ala Ser Arg Val Thr Val Phe Thr Lys Glu Ile
148           165           170           175
151 Gln Pro Lys Pro Asp Glu Val Gly Val Ala Gln Arg Met Glu Pro Arg
152           180           185           190
155 Lys Lys Arg Pro Ser
156           195
159 <210> SEQ ID NO: 3
160 <211> LENGTH: 1035
161 <212> TYPE: DNA
162 <213> ORGANISM: Mus musculus
165 <220> FEATURE:
166 <221> NAME/KEY: CDS
167 <222> LOCATION: (84)..(779)
168 <223> OTHER INFORMATION: Coding sequence
170 <400> SEQUENCE: 3
171 tcttgaggtt gccaattttt tttttttttt tttttttttt ggtttgggga      60
173 gaaacttgtt ttggaaccag ccc ctg ttt ctg ggg aat gta tat aag ggg agt
174           Leu Phe Leu Gly Asn Val Tyr Lys Gly Ser
175           1           5           10
177 tta gca cct cgt agg gat gag gtg act agt cca aag gca gag ccc cag
178 Leu Ala Pro Arg Arg Asp Glu Val Thr Ser Pro Lys Ala Glu Pro Gln
179           15          20          25
181 cca gag acg aag ccg gag aac ctt cca agg agc cac ggg gat gtt ggg
182 Pro Glu Thr Lys Pro Glu Asn Leu Pro Arg Ser His Gly Asp Val Gly
183           30          35          40
185 ctc cag aaa gag act gtg gtc cca ggc att gtg gat ttc gag ctg atc
186 Leu Gln Lys Glu Thr Val Val Pro Gly Ile Val Asp Phe Glu Leu Ile
187           45          50          55
189 cat gag gag ctg aag acc aca aag ccc caa aca tca caa cca aca ccc
190 His Glu Glu Leu Lys Thr Thr Lys Pro Gln Thr Ser Gln Pro Thr Pro
191           60          65          70
193 agt gcc tac cgc ttt gga cgc cta agc cac cat tcc ttc ttc tcg agg
194 Ser Ala Tyr Arg Phe Gly Arg Leu Ser His His Ser Phe Phe Ser Arg
195           75          80          85          90
197 cac cac ccc caa cca cag cga gtg act cat atc caa gtt aca gga aga
198 His His Pro Gln Pro Gln Arg Val Thr His Ile Gln Val Thr Gly Arg
199           95          100         105
201 gag gac ctg gag cac tcc ctg ccc ctc acc acc tct ttc cag ctc ctt
202 Glu Asp Leu Glu His Ser Leu Pro Leu Thr Thr Ser Phe Gln Leu Leu
203           110         115         120
205 caa gct cct ggg gtc cag ccc atg gat ctc act ccc tct gca gat atc
206 Gln Ala Pro Gly Val Gln Pro Met Asp Leu Thr Pro Ser Ala Asp Ile
207           125         130         135
209 gct ggg aag cct gtc tgc gtg gtc agg gac gag ttc tct ctg tcg gcc
210 Ala Gly Lys Pro Val Cys Val Val Arg Asp Glu Phe Ser Leu Ser Ala
211           140         145         150
213 ttg act cag ccc aca ttc tta tcc cgc tgt ctg atg ggg atg ccc acc
214 Leu Thr Gln Pro Thr Phe Leu Ser Arg Cys Leu Met Gly Met Pro Thr
215           155         160         165         170

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RAW SEQUENCE LISTING
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DATE: 03/06/2007
TIME: 11:32:00

Input Set : N:\efs\03_06_07

\10579879A_efs\Replacement_Sequence_Listing.txt

Output Set: N:\CRF4\03062007\J579879A.raw

217 atc tct gtc ccc att ggg gat cca cag tcc aat cg	gg aac ccc cag ctt	641
218 Ile Ser Val Pro Ile Gly Asp Pro Gln Ser Asn Arg	Asn Pro Gln Leu	
219 175	180	185
221 tct act tct gac acc tgg agg aag aaa ctg aag gac	ctg gct tcc cga	689
222 Ser Thr Ser Asp Thr Trp Arg Lys Lys Leu Lys Asp	Leu Ala Ser Arg	
223 190	195	200
225 gtg act gtc ttc act aag gaa atc cag cca aag ccc	gat gag gtt ggt	737
226 Val Thr Val Phe Thr Lys Glu Ile Gln Pro Lys Pro	Asp Glu Val Gly	
227 205	210	215
229 gtt gca caa aga atg gag cct aga aaa aaa agg cct	tct taa	779
230 Val Ala Gln Arg Met Glu Pro Arg Lys Lys Arg Pro	Ser	
231 220	225	230
233 gtctccccaa tgctcagctg ctggcacggg agggaaagga ccctcataac	ctcgaaggtg	839
235 acagcgaaaa tcaaagaaaac acaaaatcac accttagcaga gaaatccaag	aagggttccc	899
237 agaaacaccc tctaaagcaa ctgttcccaa cctgtctaatt gccttgaccc	ttgaatacag	959
239 tttctcacac tgcatgtacc cctgcccccg aaataaaaatt attttcatta	ctacttcaaa	1019
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245 <211> LENGTH: 231		
246 <212> TYPE: PRT		
247 <213> ORGANISM: Mus musculus		
249 <400> SEQUENCE: 4		
251 Leu Phe Leu Gly Asn Val Tyr Lys Gly Ser Leu Ala Pro Arg Arg Asp		
252 1 5 10 15		
255 Glu Val Thr Ser Pro Lys Ala Glu Pro Gln Pro Glu Thr Lys Pro Glu		
256 20 25 30		
259 Asn Leu Pro Arg Ser His Gly Asp Val Gly Leu Gln Lys Glu Thr Val		
260 35 40 45		
263 Val Pro Gly Ile Val Asp Phe Glu Leu Ile His Glu Glu Leu Lys Thr		
264 50 55 60		
267 Thr Lys Pro Gln Thr Ser Gln Pro Thr Pro Ser Ala Tyr Arg Phe Gly		
268 65 70 75 80		
271 Arg Leu Ser His His Ser Phe Phe Ser Arg His His Pro Gln Pro Gln		
272 85 90 95		
275 Arg Val Thr His Ile Gln Val Thr Gly Arg Glu Asp Leu Glu His Ser		
276 100 105 110		
279 Leu Pro Leu Thr Thr Ser Phe Gln Leu Leu Gln Ala Pro Gly Val Gln		
280 115 120 125		
283 Pro Met Asp Leu Thr Pro Ser Ala Asp Ile Ala Gly Lys Pro Val Cys		
284 130 135 140		
287 Val Val Arg Asp Glu Phe Ser Leu Ser Ala Leu Thr Gln Pro Thr Phe		
288 145 150 155 160		
291 Leu Ser Arg Cys Leu Met Gly Met Pro Thr Ile Ser Val Pro Ile Gly		
292 165 170 175		
295 Asp Pro Gln Ser Asn Arg Asn Pro Gln Leu Ser Thr Ser Asp Thr Trp		
296 180 185 190		
299 Arg Lys Lys Leu Lys Asp Leu Ala Ser Arg Val Thr Val Phe Thr Lys		
300 195 200 205		
303 Glu Ile Gln Pro Lys Pro Asp Glu Val Gly Val Ala Gln Arg Met Glu		

RAW SEQUENCE LISTING
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DATE: 03/06/2007
TIME: 11:32:00

Input Set : N:\efs\03_06_07

\10579879A_efs\Replacement_Sequence_Listing.txt
Output Set: N:\CRF4\03062007\J579879A.raw

304	210	215	220	
307	Pro Arg Lys Lys Arg Pro Ser			
308	225	230		
311	<210> SEQ ID NO: 5			
312	<211> LENGTH: 2117			
313	<212> TYPE: DNA			
314	<213> ORGANISM: Mus musculus			
317	<220> FEATURE:			
318	<221> NAME/KEY: CDS			
319	<222> LOCATION: (40)..(1365)			
321	<220> FEATURE:			
322	<221> NAME/KEY: variation			
323	<222> LOCATION: (336)..(336)			
324	<223> OTHER INFORMATION: results in encoded 'Xaa' at location 99 stands for Val.			
326	<220> FEATURE:			
327	<221> NAME/KEY: variation			
328	<222> LOCATION: (402)..(402)			
329	<223> OTHER INFORMATION: results in encoded 'Xaa' at location 121 stands for Val.			
331	<220> FEATURE:			
332	<221> NAME/KEY: variation			
333	<222> LOCATION: (420)..(420)			
334	<223> OTHER INFORMATION: results in encoded 'Xaa' at location 127 stands for Ile.			
336	<220> FEATURE:			
337	<221> NAME/KEY: variation			
338	<222> LOCATION: (705)..(705)			
339	<223> OTHER INFORMATION: results in encoded 'Xaa' at location 222 stands for Pro.			
341	<400> SEQUENCE: 5			
342	aagaaaagaa ggagaataga ggagctgctg gctgagaaa atg gct gtt gat ggt		54	
343	Met Ala Val Asp Gly			
344	1 5			
346	ggg tgt ggg gac act gga gac tgg gaa ggt cgc tgg aac cat gta aag		102	
347	Gly Cys Gly Asp Thr Gly Asp Trp Glu Gly Arg Trp Asn His Val Lys			
348	10 15 20			
350	aag ttc ctc gag cgg tct gga ccc ttc aca cac ccc gat ttc gaa cca		150	
351	Lys Phe Leu Glu Arg Ser Gly Pro Phe Thr His Pro Asp Phe Glu Pro			
352	25 30 35			
354	agc act gaa tca ctc cag ttc ttg tta gat aca tgt aaa gtt cta gtc		198	
355	Ser Thr Glu Ser Leu Gln Phe Leu Leu Asp Thr Cys Lys Val Leu Val			
356	40 45 50			
358	att gga gct ggt ggc tta gga tgt gag ctt ctg aaa aat ctg gca tta		246	
359	Ile Gly Ala Gly Leu Gly Cys Glu Leu Leu Lys Asn Leu Ala Leu			
360	55 60 65			
362	tct ggt ttt aga cag att cat gtt ata gac atg gac act ata gat gtt		294	
363	Ser Gly Phe Arg Gln Ile His Val Ile Asp Met Asp Thr Ile Asp Val			
364	70 75 80 85			
366	tcc aat tta aat aga cag ttt tta ttt agg cct aaa gat gty gga aga		342	
W--> 367	Ser Asn Leu Asn Arg Gln Phe Leu Phe Arg Pro Lys Asp Xaa Gly Arg			
368	90 95 100			
370	ccc aag gct gaa gtt gct gca gaa ttc cta aat gac aga gtt cct aac		390	

RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/10/579,879A

DATE: 03/06/2007
TIME: 11:32:01

Input Set : N:\efs\03_06_07

\10579879A_efs\Replacement_Sequence_Listing.txt

Output Set: N:\CRF4\03062007\J579879A.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:5; Xaa Pos. 99,121,127,222

Seq#:6; Xaa Pos. 99,121,127,222

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/579,879A

DATE: 03/06/2007

TIME: 11:32:01

Input Set : N:\efs\03_06_07

\10579879A_efs\Replacement_Sequence_Listing.txt

Output Set: N:\CRF4\03062007\J579879A.raw

L:13 M:270 C: Current Application Number differs, Replaced Current Application Number

L:367 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:342

M:341 Repeated in SeqNo=5

L:534 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:96

M:341 Repeated in SeqNo=6